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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,893	06/21/2002	Johann Drexler	32860-000306/US	6824

30596 7590 08/28/2003
HARNES, DICKEY & PIERCE, P.L.C.
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EXAMINER

FISHMAN, MARINA

ART UNIT PAPER NUMBER

2832

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,893

Applicant(s)

DREXLER ET AL.

Examiner

Marina Fishman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 9-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 9-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s) 8.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other:

DETAILED ACTION

General Status

1. This is a First Action on the Merits. Claims 1 and 9 - 27 are pending in the case and are being examined.
2. In response to this Office action, the applicant is required to confirm the cancellation of claims 2-8.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 - 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Donald A. Young [GB 1,432,372] in view of G. Weyd [CH 169467].

Donald A. Young discloses a switch assembly comprising:

- a housing [1], a drive coil [2], an armature [4], an operating element [5], vacuum contact [7, 10];
- the drive coil [2] is deflecting the armature from an armature rest position to an armature operating

position when pull-in current is applied [Column 2, lines 2 – 15];

- the deflection of the armature [4] is causing the operating element [5] to be deflected from an element rest position [Figure 1] to an element operating position [Column 2, lines 12 - 14] and to close the contact [Column 2, lines 26 - 29];
- the armature is passing through an initial movement distance [distance between the end 105 of armature 4 to front 110 of the operating element 5 – hereinafter called d2, see attachment 1] and then through a driving movement [distance between the operating element 5 and end wall of the casing 1 – herein after called d1], with the operating element [5] being deflected by the armature only while the armature is passing through the driving movement distance;
- the operating element is remaining in the element rest position when a current applied to the drive coil is less than the pull-in current [Column 2, lines 2 – 5].

Regarding claims 9 and 10, Donald A. Young discloses the initial movement distance [d2] being greater than the driving movement distance [d1] that means that the ratio d1:d2 is less than 1, which satisfies the limitation of the claims 9 and 10.

Regarding claims 12, 13, 17, 18, 20 and 21, Donald A. Young discloses the claimed invention except for the specific relations between initial movement force and the driving force. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the specific relations between initial movement force and the driving force, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art [In re Aller USPQ 233].

Regarding claims 11, 14, 15, 16, 19, 22, 23, 24 and 25, Donald A. Young discloses a stop [110], the armature [4] is deflected by the drive coil [2] against an initial movement force, applied by an initial movement spring device [13], while is passing through the initial movement distance, and against a driving force, applied by a driving spring device [11], while is passing through the driving movement distance, where in the initial movement force is less then the driving force [Column 2, lines 24 - 27].

Regarding claim 26, Donald A. Young describes the method of operating the switch assembly [Column 2].

Regarding claims 1 - 27, Donald A. Young discloses the instant claimed invention except for the switch being a vacuum switch. G. Weyd discloses a vacuum contactor [instant specification, page 1]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the switch of Donald A. Young, as suggested by G. Weyd, in order to protect the contacts.

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Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamazaki et al. [US 6,373,675], Miller et al. [US 6,156,989], Isikawa et al. [US 6,020,567].


Applicant also should consider these references in response to this office action. Should issue arise concerning the rejection presented above, these references may be relied upon in a subsequent action to support the lack of novelty or obviousness of claimed subject matter to one of ordinary skill in the art.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Fishman whose telephone number is 703-305-1665. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (703) 308-1782. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1920.

Marina Fishman
August 15, 2003


KARL D. EASTHOM
PRIMARY EXAMINER

10689893

1432372 COMPLETE SPECIFICATION
1 SHEET This drawing is a reproduction of
the Original on a reduced scale

Attachment 1

